| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/623,598 | 07/22/2003 | Atsuko Koizumi | 501.42942X00 | 5837 |

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| ART UNIT | PAPER NUMBER |
|---|---|
| 2161 | |

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | **Office Action Summary** | **Application No.** | **Applicant(s)** |
|---|---|---|---|
| | | 10/623,598 | KOIZUMI ET AL. |
| | | **Examiner** | **Art Unit** | |
| | | Kavita Padmanabhan | 2161 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on <u>07 September 2006</u>.
2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) <u>1-14</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-14</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>22 July 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All   b) ☐ Some * c) ☐ None of:

         1. ☒ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

| | |
|---|---|
| 1) ☐ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) |      Paper No(s)/Mail Date. _____ . |
| 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) ☐ Notice of Informal Patent Application (PTO-152) |
|      Paper No(s)/Mail Date _____ . | 6) ☐ Other: _____ . |

## DETAILED ACTION

### *Status of Claims*

1.    Claims 1-14 are pending.

2.    Claims 1-14 have been amended.

3.    Claims 1-14 are rejected.

### *Claim Language*

4.    Claims 1, 9, and 10 contain "intended use" functionality language such as "memory unit

for storing", "attribute attaching unit for extracting", "unit to calculate", "unit for extracting",

"unit for clustering", "display unit for displaying", "a first dictionary for storing"," and " a

second dictionary for restoring".

Applicant is advised that "intended use" language in the claims does not add patentable

weight.  If applicant's intent is to claim the functional language, applicant is advised to change

"memory unit for storing" to "memory unit storing", for example.

### *Claim Rejections - 35 USC § 112*

5.    The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

6.    **Claims 1-14** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the written description requirement.  The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed

invention. There does not appear to be support in the applicant's specification for the term

"attribute," the phrase "*extracting* data possessing a common word or term among the stored

data," the phrase attaching common attributes to said extracted data," or that high frequency data

is data that possesses a common word or term among the stored data and that low frequency data

is data with no attributes, as recited in the amended claims. Furthermore, the applicant has not

directed the examiner to portions of the applicant's original specification that support the newly

added or amended limitations.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 1-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

**Claim 1** recites the limitation "wherein the analysis unit analyzes data with no attributes

which is low frequency data by using a negative word dictionary" at lines 8-9 of the claim. It is

unclear whether the applicant is intending to claim that the analysis unit analyzes data that is

both low frequency and has no attributes using the negative word dictionary or whether the

applicant is intending to claim that low frequency data is data that has no attributes. If it is the

latter, the applicant is advised to enclose the phrase "which is low frequency data" with commas.

*Claim Rejections - 35 USC § 101*

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10.     **Claims 1-3, 7-8, and 14** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a test of whether the invention is categorized as a process, machine, manufacture or composition of matter and if the invention produces a useful, concrete and tangible result. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) are found to be non-statutory subject matter. For a method claim to pass muster, the recited process must produce a useful, concrete and tangible result.

In the instant case, **claim 14** recites a program comprising software per se, and is therefore not statutory. Furthermore, the steps performed by program appear to be directed towards an abstract idea and do not produce a useful, concrete and tangible result. In particular, the result of claim 14 appear to be the analysis of data, which is an abstract idea and does not constitute a tangible result.

In the instant case, **claims 1-3 and 7-8** recite a processor, memory, an association attaching unit and an analysis unit. Reciting a processor and memory with instructions that perform a method is the same as saying a computer implemented method as it is merely form over substance. As a result, claim 1 is nonstatutory for the same reasons as claim 14 as explained above. **Claims 2-3 and 7-8** are similarly nonstatutory.

The examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 101 rejections.

*Claim Rejections - 35 USC § 102*

11.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12.    **Claims 1-3 and 14** are rejected under 35 U.S.C. 102(e) as being anticipated by

**Kantrowitz** (US 6,622,140).


In regards to **claim 1, Kantrowitz** teaches an information processor comprising:

– a memory unit for storing multiple data **(Kantrowitz; Fig. 5, reference character 514)**;

– an attribute attaching unit for extracting data possessing a common word or term among

the stored data as high frequency data and attaching common attributes to said extracted

data **(Kantrowitz; col. 12, line 63 – col. 13, line 42)**; and

– an analysis unit for analyzing said data **(Kantrowitz; Fig. 5, reference character 516;**

**also see code in cols. 7-8)**,

– wherein the analysis unit analyzes data with no attributes which is low frequency data by

using a negative word dictionary **(Kantrowitz; col. 12, line 63 – col. 13, line 42; col. 12,**

**lines 27-57 – affect lexicon constitutes a negative word dictionary; col. 13, line 43 –**

**col. 14, line 17)**.


In regards to **claim 2, Kantrowitz** teaches an information processor according to claim 1,

comprising:

- an input unit (**Kantrowitz; col. 8, lines 15-26 – input to the code**); and

- a unit to search said database using a key word received by way of said input unit,

- wherein said attribute attaching unit attaches the attributes to the extracted retrieval result data (**Kantrowitz; col. 5, lines 28-32, 41-52 – the retrieved results are stored data upon which the analysis process discussed above has been performed**).

In regards to **claim 3, Kantrowitz** teaches an information processor according to claim 2, wherein

- said input unit receives a specified count extracted in said retrieval unit (**Kantrowitz; col. 8, lines 15-26 – "if" block receives input that is the value of distancelimit**), and

- wherein said analysis unit analyzes data possessing attributes extracted by a count larger than said count, and data possessing attributes extracted by a count smaller than said count, by a different analysis method (**Kantrowitz; col. 8, lines 15-26 – if affectoffset is less than distancelimit, the analysis includes the "if" block, if not, then the analysis is different in that it performed an analysis process, only without the processing of the "if" block; col. 13, lines 48-64**).

**Claim 14** is rejected with the same rationale given for claim 2.

*Claim Rejections - 35 USC § 103*

13.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14.    This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15.    **Claims 4-6 and 10-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kantrowitz in view of O'Dell** (US 6,801,659), **and further in view of Sukehiro et al.** (US 2004/0205671, hereinafter "Sukehiro").


In regards to **claim 4, Kantrowitz** teaches an information processor according to claim 1 and also teaches a display unit that is capable of displaying information **(Kantrowitz; Fig. 5, reference character 510; col. 6, lines 2-4)**.

Kantrowitz does not expressly teach said negative dictionary comprises a first dictionary storing words in Chinese character units and a second dictionary for storing words containing said Chinese characters, and wherein said analysis unit searches from said data for words stored in said first and said second dictionary and from words containing Chinese characters retrieved from said first dictionary displays words not in said second dictionary on a display unit, and from among said displayed words stores specified terms in said second dictionary.

**O'Dell** teaches dictionaries storing the Chinese equivalent of letters and words **(O'Dell; col. 3, lines 21-27; Fig. 1, reference character 8, 12, 16; col. 8, lines 39-42).**

**Sukehiro** teaches adding terms that are found in a first dictionary but are not found in a second dictionary are added to the second dictionary **(Sukehiro; par [0149], lines 4-8).**

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement the information processor of Kantrowitz using the Chinese characters and words taught by O'Dell in the affect lexicon, thereby allowing the processor to be used with character-based data, such as Chinese data **(O'Dell; col. 1, lines 18-22; col. 2, lines 21-22).** It would further have been obvious to one of ordinary skill in the art at the time of the applicant's invention to incorporate the feature of Sukehiro, whereby when checking the phrases of Kantrowitz against the negative dictionary implemented as a first and a second dictionary, when a term is in the first dictionary but not in the second dictionary, meaning a character matches a character from the first dictionary but a sequence of characters in the text do not match a sequence of characters in the second dictionary, this sequence of characters is displayed to the user via the display unit of Kantrowitz in order to allow a user to add the sequence of characters to the second dictionary, as taught by Sukehiro. This would provide the benefit of making the affect lexicon more complete for future use based on the user's needs.

**Claims 5 and 6** are each rejected with the same rationale given for claim 4.

**Claims 10-13** are rejected with the same rationale given for claim 6, wherein it would have been obvious to store words that are not specified separately from the first and second dictionary to provide more efficient storage of the data, as is well known in the art.

16.    **Claims 7-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kantrowitz in view of Komissarchik et al.** (US 5,799,276, hereinafter "Komissarchik").

In regards to **claim 7, Kantrowitz** teaches an information processor according to claim 1. Kantrowitz does not expressly teach a dictionary for storing words expressing modalities, wherein said analysis unit performs analysis using said dictionary.

**Komissarchik** teaches a dictionary including modal verbs **(Komissarchik; col. 11, lines 15-32)**.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement the affect lexicon of Kantrowitz incorporating modal verbs as taught by Komissarchik in order to provide all permissible grammatical forms of a word **(Komissarchik; col. 11, lines 15-32)**, thereby making the lexicon more complete.

**Claim 8** is rejected with the same rationale given for claim 7.

17.    **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kantrowitz in view of Hlava et al.** (US 6,898,586, hereinafter "Hlava").

In regards to **claim 9, Kantrowitz** teaches an information processor according to claim 2, comprising: a unit to calculate the association level between a word and a word from said stored data **(Kantrowitz; col. 13, lines 33-35, 43; col. 13, line 48 – col. 14, line 42)**, a unit for extracting key terms from said stored data **(Kantrowitz; col. 12, lines 15-17; col. 12, line 63 – col. 13, line 37, col. 13, lines 48-64)**, a display unit **(Kantrowitz; Fig. 5, reference character 510; col. 6, lines 2-4)**.

Kantrowitz does not expressly teach a unit for clustering said key terms using said information attribute level and generating a thesaurus overview, and displaying key terms belonging to clusters of the thesaurus overview selected by said input unit, and key terms specified by said command input unit from said displayed key terms being set as said key words.

**Hlava** teaches a thesaurus display and allowing users to modify the relationships specified in the thesaurus **(Hlava; col. 12, lines 1-25)**.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement the information processor of Kantrowitz using the thesaurus display and editing function of Hlava, whereby, when a term, for example, is found in the stored data, which is based on an attribute level in that a term from the lexicon is attributed to a term in the stored data for it to match, a list of synonyms for that term can be displayed and then added to the dictionary if the user chooses, thereby being set as a future keyword that might be extracted. This would provide the benefit of allowing the user to add or remove associations/attributes from the database dictionary **(Hlava; col. 12, lines 13-25)**.

### *Response to Amendment*

18.    Applicant's amendments filed 9/7/06 with respect to the claim objections have been fully

considered.  The objections to the claims have been withdrawn accordingly.

19.    Applicant's amendments filed 9/7/06 with respect to the 35 U.S.C. 112, 2$^{nd}$ paragraph

rejections have been fully considered.  The corresponding rejections have been withdrawn

accordingly.  However, the newly introduced amendments to the claims have precipitated new

35 U.S.C. 112, 2$^{nd}$ paragraph rejections, as explained above.

### *Response to Arguments*

20.    Applicant's arguments filed 9/7/06 with respect to the "intended use" functionality

language have been fully considered but they are not persuasive.

Applicant argues that the language of claims 1, 9, and 10 has been drafted in accordance

with 35 U.S.C. 112, 6$^{th}$ paragraph.  The examiner respectfully disagrees and asserts that claims 1,

9, and 10 do not appear to have invoked the protections of 35 U.S.C. 112, 6$^{th}$ paragraph.  In

particular, "a claim limitation will be *>presumed< to invoke 35 U.S.C. 112, sixth paragraph, if

it meets the following 3-prong analysis:

   (A)    the claim limitations must use the phrase "means for " or "step for; "

   (B)    the "means for " or "step for " must be modified by functional language; and

   (C)    the phrase "means for " or "step for " must not be modified by sufficient

   structure, material>,< or acts for achieving the specified function." (MPEP 2181)

The claims do not appear to meet the above criteria for invoking 35 U.S.C. 112, sixth paragraph.

21.    Applicant's arguments filed 9/7/06 with respect to the 35 U.S.C. 101 rejections have been

fully considered, however claims 1-3, 7-8, and 14 still do not appear to produce a tangible result.

The rejections of those claims are therefore maintained.

22.    Applicant's arguments filed 9/7/06 with respect to the prior art rejections of the claims

have been fully considered but they are not persuasive.

Applicant argues at page 11 of applicant's remarks that while the primary reference teaches

separating high frequency data from low frequency data in order to analyze low frequency data,

the references relied upon allegedly do not teach all the limitations recited in the claims.  In

particular the applicant argues that the references do not teach an attribute attaching unit for

extracting data possessing a common word or term among the stored data as high frequency data

and attaching common attributes to the extracted data and an analysis unit for analyzing the data,

wherein the analysis unit analyzes data with no attributes which is low frequency data by using a

negative word dictionary, as recited in the amended claims.  The examiner respectfully disagrees

and asserts that the references do indeed teach these limitations.  In particular, Kantrowitz

teaches an attribute attaching unit for extracting data possessing a common word or term among

the stored data as high frequency data and attaching common attributes to said extracted data

(Kantrowitz; col. 12, line 63 – col. 13, line 42) and an analysis unit for analyzing said data

(Kantrowitz; Fig. 5, reference character 516; also see code in cols. 7-8), wherein the analysis unit

analyzes data with no attributes which is low frequency data by using a negative word dictionary

(Kantrowitz; col. 12, line 63 – col. 13, line 42; col. 12, lines 27-57 – affect lexicon constitutes a

negative word dictionary; col. 13, line 43 – col. 14, line 17).

## *Conclusion*

23.    **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

24.    Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Kavita Padmanabhan** whose telephone number is **571-272-**

**8352**. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the

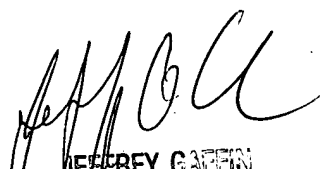organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kavita Padmanabhan
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November 20, 2006

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